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1 recall that?

2 A. Yes, I do.

3 Q. What is your understanding of the regulated status of AADS
4 in Ohio?

5 A. Well, back in August of 1993 AADS asked for -- to become
6 a -- they're basically a public utility in the State, and
7 they're a subsidiary of Ameritech Corporate, not Ameritech Ohio.
8 And they have certificated to resell services, and they have to
9 file tariffs with the State of Ohio, and they offer -- the
10 purpose of the certification was to offer frame relay and other
11 data services. So they've been -- they've had a license since
12 August of 1993.

13 MR. CONWAY: Thank you. No further questions.

14 EXAMINER JENNINGS: Just to follow up on that. How
15 are they certificated?

16 THE WITNESS: As a -- They're more as a reseller and
17 they're treated as a public utility. Does that kind of make
18 sense?

19 EXAMINER JENNINGS: Inter-exchange carrier or a local
20 carrier provider?

21 THE WITNESS: They can't be an exchange carrier;
22 they're still restricted. It's all intraLATA traffic that they
23 can end.

24 MEMBER SOLIMAN: Would the CGS provider ring a bell
25 for you?

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1 THE WITNESS: They're more of a reseller.

2 MR. CANIS: May I?

3 EXAMINER JENNINGS: Go ahead.

4 - - -

5 RECROSS-EXAMINATION

6 BY MR. CANIS:

7 Q. I think you said they were licensed since August '93?

8 A. Yeah.

9 Q. They have a certificate of public convenience and
10 necessity?

11 A. Yes.

12 Q. And that's what was issued in August of '93?

13 A. Right. So to be a reseller and then only for -- and they
14 stated that would be for frame relay and other data services.

15 Q. So they -- Now, I believe in Mr. Whiting's testimony he
16 defined -- well, I can dig through this and find it if we need
17 to, but see if you can humor me in the meantime, somebody
18 defined AADS as taking frame relay service and adding
19 enhancements; do you recall the bells and whistles?

20 A. Right, uh-huh.

21 Q. Are they an enhanced service provider?

22 A. No. Enhanced frame relay is -- it's not regulated, and
23 that's what he means by adding enhancements to it. So we
24 don't -- I say "we," basic frame relay is offered by Ameritech
25 Ohio. Enhanced frame relay generally is sold out of AADS.

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1 Although AADS could sell basic frame relay, but then they'd be
2 purchasing out of the Ameritech Ohio tariff and then, you know,
3 basically reselling that, and I don't know if there would be the
4 margins there in order to compete successfully.

5 Q. Mr. Wardin, I don't know if I misunderstood you or not, did
6 you say that AADS provides service by tariff?

7 A. They have a tariff in the State of Ohio.

8 Q. But they do not provide the service that we discussed,
9 including the --

10 A. That's correct.

11 Q. -- this framed by tariff?

12 A. That's correct, because they purchase from Ameritech Ohio
13 the basic frame relay function.

14 Q. But when Ameritech purchased switching functionality from
15 AADS, that is done through a negotiated contract?

16 A. That's correct.

17 Q. And is that because the functionality that Ameritech
18 purchases from AADS, which I recall is a combination of frame
19 relay switching, OC-3 to 48, or T-1, or DS-3, one of those --

20 A. Transport.

21 Q. -- transport, and multiplexing is an enhanced service or is
22 a nonregulated service?

23 A. No. By contract -- You know, AADS is regulated like any
24 other framed servicer. If somebody else wanted to provide frame
25 relay functionality to Ameritech Ohio, we could negotiate with

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- 1 them and then --
- 2 Q. Right, okay.
- 3 A. -- and then do that.
- 4 Q. Okay.
- 5 A. So if ICI came in and you wanted to offer us better terms
- 6 and conditions for a local frame relay, we might use you as our
- 7 underlying carrier.
- 8 Q. Okay. And then, so the serve- -- what services then does
- 9 AADS provide under tariff?
- 10 A. AADS would provide the enhanced frame relay services; so
- 11 they would be packaging the basic frame relay with the
- 12 enhancements. I believe Tim clarified it a little bit more what
- 13 those are. When we start talking about the types of
- 14 enhancements, that's starting to get beyond my knowledge base,
- 15 to be honest about it.
- 16 Q. Okay. But those are the services, including basic frame
- 17 relay service, resold from Ameritech --
- 18 A. Right.
- 19 Q. -- that AADS provides pursuant to tariff?
- 20 A. Correct. You know, there was a -- obviously, a period of
- 21 time in there when AADS also was the sole provider of basic
- 22 service. It was when we filed the federal tariff, and then the
- 23 Ameritech Ohio access tariff in 1996, that then basic was
- 24 provided by Ameritech Ohio. And so then that part of AADS kind
- 25 of moved over to the regulated side of the business.

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1 Q. Did you say AADS maintains a federal tariff as well as a
2 state tariff?

3 A. They had a federal tariff. We withdrew that recently, but
4 it was not for frame relay services.

5 Q. Do you know what it was for?

6 A. DS-1 and DS-3 services.

7 MR. CANIS: Okay. Thank you.

8 - - -

9 FURTHER EXAMINATION

10 BY MEMBER SOLIMAN:

11 Q. Another clarifying question here.

12 A. Okay.

13 Q. And I think I became confused again. Does AADS provide
14 frame relay service to carriers or only to end users?

15 A. Subject to check, AADS could provide frame relay to both
16 traditional what we want to call carriers or end users.

17 Traditionally, their focus would be on end users because of the
18 CPE that you bring with it.

19 What most carriers, you know, want to have is just basic
20 frame relay and they don't -- they want to provide the
21 enhancements themselves. So on a theoretical basis, they could
22 provide the frame relay services to carriers. On a practical
23 matter, most of the time it would be the carriers would be
24 purchasing it out of the tariff from Ameritech Ohio.

25 Q. So to your knowledge, can carriers go directly to AADS to

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1 obtain frame relay service?

2 A. Yes.

3 Q. For origination and termination?

4 A. Yeah. Prior to, you know, June of '96, carriers were
5 purchasing frame relay from AADS, and after that, though, if
6 they wanted to purchase basic frame relay, moved over to the
7 Ameritech Ohio State access tariff or the federal interstate
8 access tariff.

9 Q. And that was based on an FCC Commission of -- FCC order?

10 A. Yeah, we were asked by the FCC if we would file frame relay
11 services in our tariff.

12 MEMBER SOLIMAN: Would it be possible to get a copy of
13 that FCC order or get the number of the FCC order?

14 MR. CONWAY: Certainly.

15 THE WITNESS: Yeah, we can get a copy of that order.
16 Back in mid '96 sometime.

17 MEMBER SOLIMAN: Okay. If we can even get the number.

18 THE WITNESS: From February to April time frame.

19 MEMBER SOLIMAN: All right. Thank you.

20 THE WITNESS: Thank you.

21 EXAMINER JENNINGS: Any further redirect?

22 MR. STEMM: No, your Honor. At this time, we would
23 move for the admission of what have already been marked as
24 Ameritech Ohio Exhibits No. 2 and 3, and we've also have marked
25 as Ameritech Ohio Exhibit No. 4, the additional little drawings

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1 that have been put on the white board along with the -- what had
2 already stayed up on the board.

3 - - -

4 Thereupon, Ameritech Ohio Exhibit No. 4 was marked for
5 purposes of identification.

6 - - -

7 MR. VIREN: Can you use different colors?

8 THE WITNESS: Can you tell I have non-linear thinking?

9 MR. STEMM: It's already been added to what has
10 already been admitted; so take a look at that and see. And we
11 ask for admission of that as well.

12 We can get copies of those to you tomorrow or you can
13 photocopy them now if you'd like.

14 (Witness excused.)

15 (Discussion held off the record.)

16 EXAMINER JENNINGS: If there's no objection, Ameritech
17 Ohio Exhibits 2, 3, and 4 will be admitted into the record.

18 MR. CANIS: No objection.

19 EXAMINER JENNINGS: There being no objection, they
20 will be admitted.

21 MR. STEMM: With the understanding that No. 1 was
22 already admitted, correct?

23 EXAMINER JENNINGS: Yes.

24 MR. STEMM: Thank you.

25 - - -

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1 Thereupon, Ameritech Ohio Exhibit Nos. 2, 3 and 4 were
2 received into evidence.

3 - - -

4 EXAMINER JENNINGS: If there is nothing else, I
5 believe this hearing is concluded, with briefs to be filed as
6 previously discussed.

7 MR. CANIS: One final question because I know this is
8 an unusual procedure here. Do we have any page limits or
9 anything on the briefs, not that we're thinking of anything
10 overly elaborate.

11 MEMBER SOLIMAN: It's one issue.

12 MR. STEMM: Five for you, fifteen for us.

13 (Laughter.)

14 EXAMINER JENNINGS: Insofar as page limits, does
15 anyone foresee any problem with 15 pages, will it be too
16 restrictive?

17 MR. CANIS: That's fine.

18 MR. STEMM: Okay.

19 EXAMINER JENNINGS: Okay.

20 (Discussion held off the record.)

21 EXAMINER JENNINGS: Just one other issue that I'd like
22 to see addressed.

23 MEMBER SOLIMAN: Okay. Generally, parties have argued
24 about the frame relay service as predominantly for data versus
25 voice and other party have been saying no, it's for both. We

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1 would like you to address if the Telecommunications Act
2 obligating interconnection for telephone exchange access and
3 switched access, is it limiting it to voice or data or if there
4 is any sort of restriction on that.

5 EXAMINER JENNINGS: Also bear in mind that the
6 Commission's last entry was issued. The Commission will be
7 considering the motion to deny the petition as part of the
8 information received in this hearing. I just emphasize that,
9 and with that, I believe we are done.

10 MR. STEMM: Thank you.

11 MR. CANIS: Thank you.

12 - - -

13 (Thereupon, the hearing was concluded at 4:35 o'clock
14 p.m. on Monday, May 12, 1997.)

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ATTACHMENT 3

**TRANSCRIPT: CROSS EXAMINATION OF TIMOTHY WHITING AT
INDIANA ARBITRATION HEARING
("Whiting Indiana Testimony")**

1 if asked today?

2 A. Yes.

3 MR. FRUEHWALD: Your Honor, at
4 this time I'd offer Exhibit 2 as clarified and
5 Exhibit 3.

6 JUDGE MILLER: Any objection?

7 MR. CANIS: An observation, your
8 Honor, that this is more than a correction,
9 it's clearly an expansion of the substance of
10 Mr. Whiting's testimony. Intermedia does not,
11 however, object to its inclusion.

12 JUDGE MILLER: The proffered
13 exhibits marked Respondent's Arbitration
14 Exhibits 2 and 3 are admitted into the record
15 without objection.

16 MR. FRUEHWALD: I would offer the
17 witness for cross-examination at this time.

18 CROSS-EXAMINATION,

19 QUESTIONS BY MR. JONATHAN E. CANIS:

20 Q. Mr. Whiting, on page 3 of your testimony -- and
21 this is your verified statement, page 3, line
22 11, you state that, "Most customers use frame
23 relay service only for connecting their own
24 separate Local Area (data) Networks." You say
25 most customers.

1 What do other customers use frame relay
2 service for?

3 A. Well, there's a certain number of customers
4 that utilize frame relay for data that is not
5 carried by local area networks such as older
6 Legacy protocols, but by far the local area
7 network is really the most -- the largest
8 percentage of the traffic that's carried.

9 Q. You said other types of data services. Would
10 you clarify what those are?

11 A. Where?

12 Q. I'm sorry, you said outside of LAN,
13 interconnection frame relay is used for other
14 data services. Could you clarify a little bit
15 more what those data services are?

16 A. Data services that would not be carried across
17 a local area network such as older Legacy type
18 protocols, mainframe type traffic.

19 Q. Is that all that frame relay customers use
20 frame relay for?

21 A. There are certain customers, no current
22 Ameritech customers, but there are certain
23 customers I know that have tested frame relay
24 for voice and also video transmission.

25 Q. And do those customers that you're familiar

1 with use frame relay for video teleconferencing
2 or video conferencing?

3 A. Not that I'm aware of.

4 Q. Is there any technical reason why frame relay
5 could not be used for that application?

6 A. Technically, no.

7 Q. I'm referring now to -- generally to your
8 testimony on page 4 of your verified statement
9 discussing switched versus connection-oriented
10 services. Is it your testimony that frame
11 relay is not a switched service but that voice
12 telephony is?

13 A. More accurately my testimony is frame relay is
14 a switching technology, but is not switched in
15 the same respect as a -- the classical public
16 switched telephone network.

17 Q. Can frame relay be switched?

18 A. Technically there is some proprietary
19 capability which exists today to switch frame
20 relay.

21 Q. Is there any form of voice telephony that is
22 connection-oriented?

23 A. Yes.

24 Q. Could you elaborate, please?

25 A. It's possible for a customer to have a voice

1 conversation over a dedicated private line when
2 they have ownership of both ends of that
3 private line, so a lot of businesses that in
4 the old days would have private line networks
5 for their data, they would piggyback voice on
6 to that. Notable issues with that are the
7 voice quality and also the inability to talk to
8 anyone outside of that company.

9 Q. When you say private line, what kind of
10 technology are you talking about?

11 A. A private line is just the digital transport
12 connectivity that would carry protocols on top
13 of it, the actual wire in the ground, so to
14 speak.

15 Q. Is it your testimony that no technology other
16 than switched telephony using the public
17 switched network has -- will yield adequate
18 quality to be used for normal telephony?

19 A. Well, you mixed a couple different terms there,
20 adequate and normal. Certainly there are some
21 adequate technologies where you and I could
22 speak and understand each other, but by no
23 means could that be considered as normal
24 conversation such as you picking up a telephone
25 out in the lobby and making a call to someone

1 back in your office in Washington.

2 Q. Why not?

3 A. You would see a marked discrepancy in the
4 quality. There's the potential for parts of
5 your conversation to be dropped.

6 Q. And you're saying this is the distinction
7 between all telephony over switched voice,
8 public switched network and all voice telephony
9 transferred over connection-oriented networks?

10 A. What I was speaking to specifically was frame
11 relay and its ability to carry voice, and all I
12 was trying to say is the quality there by no
13 means can be construed as being the same as the
14 public switched telephone network.

15 Q. I think I asked you earlier if there were other
16 forms of connection-oriented transmission that
17 did not lead to diminution in the quality of a
18 voice transmission.

19 A. I don't think -- I don't recall you asking me
20 that. I think you asked me other types of
21 connection-oriented technology that could carry
22 voice.

23 Q. Okay. Let me ask you this. Are there other
24 kinds of connection-oriented transmission media
25 that can transmit voice telephony without

1 degradation of the service?

2 A. The private line type of technology that I
3 outlined before has the possibility to do that.
4 However, that would mean the customer could not
5 run any other data over that network, making it
6 impractical.

7 Q. So it is possible, I -- I guess we should
8 define our terms. Normal voice telephony,
9 let's just for purposes of this line of
10 questioning, let's say that would be the kind
11 of telephony and the kind of quality that we
12 would get if we used a pay phone or a typical
13 office phone, something along those lines.

14 Can I obtain a normal voice connection
15 over a private line facility?

16 A. Well, you get into a fuzzy area when we start
17 talking about office phones because, again, a
18 lot of companies, the state probably included,
19 have their own internal network they build with
20 the private lines.

21 I think maybe more accurate, you can look
22 at your home phone where it's unlikely that you
23 have a similar setup. There I would say no,
24 there would be a noticeable difference between
25 the telephone service that you receive from

1 home as opposed to an intracompany type service
2 that you would have maybe at a company or the
3 state government.

4 Q. Well, is it your testimony, then, that
5 businesses with private networks have voice
6 telephony that is inferior in quality to what
7 they would get over their home phones?

8 A. More accurately I think my testimony is
9 businesses that have frame relay as technology
10 carrying voice, the quality would be inferior
11 to what they get from --

12 Q. Let's not talk specifically about frame relay.
13 Let's talk about any other form of
14 connection-oriented transmission medium of
15 which you are aware.

16 A. Any business that I've dealt with either in my
17 capacity selling to them directly or acting as
18 a marketing representative of Ameritech, their
19 quality has been inferior to the public
20 switched telephone network.

21 Q. So it is your testimony that any entity that
22 uses a connection-oriented network will in fact
23 have a communications system that is noticeably
24 inferior to the telephone service that you get
25 at home?

1 A. Again, I think you're trying to broaden my
2 testimony. I'm here to talk about frame relay,
3 and all I can say is frame relay will be
4 inferior to the public switched telephone
5 network. I really can't speak as a technical
6 expert to any of the other technologies.

7 Q. Can you speak as a technological expert on ATM?

8 A. Yes.

9 Q. Do ATM networks provide voice telephony?

10 A. That may be the future.

11 Q. Could you elaborate, please?

12 A. Currently everything today would be
13 proprietary. Asynchronous transfer mode, which
14 is the ATM technology, is in the very early
15 stages of having quality of service for voice
16 transmission across that, that technology.

17 Q. Are you aware of any companies that use ATM to
18 provide voice telephony?

19 A. I believe -- no, I'm not aware of any.

20 Q. Does Ameritech have any ATM networks?

21 A. No.

22 Q. Is it constructing any ATM networks?

23 A. I believe there are plans in place, yes.

24 Q. Do you have any idea what those ATM networks
25 will be used for?

1 A. It's my understanding to offer ATM services to
2 end customers. That's the part I can speak to.

3 Q. Do you know what those ATM services are?

4 A. Primarily data transport.

5 Q. Do you know, are voice telephony applications
6 included in those services?

7 A. I think they will be in the future. Again,
8 similar to frame relay, it would be primarily
9 or actually exclusively for intracompany type
10 communication. A company would put in an ATM
11 network to talk amongst their locations.

12 Q. But ATM then would be a connection-oriented
13 service that is used in the provision of voice
14 telephony?

15 A. Yes, similar to frame relay. That's not the
16 point I'm trying to make. I don't think the
17 quality in ATM will be indistinguishable from
18 the quality in the public switched telephone
19 network either.

20 JUDGE MILLER: You say you don't
21 think?

22 THE WITNESS: I do not.

23 JUDGE MILLER: Thank you.

24 Q. Are you aware whether the manufacturers Lucent
25 and Northern Telecom provide ATM voice

1 conversion technology?

2 A. Voice conversion, I'm not aware -- I'm not sure
3 what that means.

4 Q. Do you know if those manufacturers provide a
5 technology that would provide a connection
6 directly from voice switches to their ATM
7 network?

8 A. I believe that to be true.

9 Q. Do you know what the purpose of that connection
10 would be?

11 A. Similar to the customer premises equipment
12 vendors for frame relay premises equipment that
13 carry voice, to take a technology such as voice
14 which isn't really meant for this type of
15 transport and fit it into that transport.

16 Q. So we're talking about a ATM application which
17 would use a connection-oriented circuit to
18 extend the reach of a call originated on the
19 public switched network, is that the case?

20 A. Originated on the public switched telephone
21 networks, I'm not sure if that is the case.
22 But in general it would take a voice call and
23 be able to transport it over a data technology.

24 Q. So it would take a voice call on the
25 switched -- public switched network and would

1 transmit it over a connection-oriented network?

2 A. That's your question?

3 Q. That was my question.

4 A. Again, I'm not aware of the plans to
5 interconnect the public switched telephone
6 network over this type of data. I know for
7 internal company communications, I guess
8 conceivably you could bring a call in to your
9 phone switch from the outside and transmit it
10 internally.

11 Q. And conversely could you take a call that
12 originated on my intracompany
13 connection-oriented ATM network and transmit it
14 to the public switched network for termination?

15 A. Yes.

16 Q. In your verified statement, and I am referring
17 now to lines 11 and 12, you state in that
18 sense, frame relay is.--

19 MR. FRUEHWALD: Give me the page.

20 MR. CANIS: I'm sorry, page 4,
21 lines 11 and 12.

22 Q. You state, "In that sense, frame relay is
23 connection-oriented rather than switched."

24 What is the purpose of making this
25 distinction in your testimony?

1 A. Well, I wanted to make sure it was understood
2 that although frame relay is a switching
3 technology, you don't have the ability to call
4 other -- other locations that aren't on a
5 preprovision path.

6 Q. Is this distinction relevant to whether service
7 can be interconnected for the transport and
8 termination of exchange service?

9 A. I don't know if the term exchange service is
10 relevant, so I don't know how to answer your
11 question.

12 Q. Well, let me put it this way. This proceeding
13 is about Intermedia's attempt to obtain
14 transport and termination for the provision of
15 frame relay service at mutually compensatory
16 rates pursuant to the Communications Act. Is
17 your distinction with your assertion that frame
18 relay is a connection-oriented rather than a
19 switched service relevant to this proceeding?

20 MR. FRUEHWALD: Your Honor, I'm
21 going to object to that in terms the witness is
22 here as a fact witness. Whether it's relevant
23 is a determination for the lawyers to argue and
24 for you to make. The witness cannot be
25 required to talk about whether something is

1 relevant to a legal argument that he's not
2 making. He's a fact witness, so I think that's
3 an inappropriate question.

4 MR. CANIS: Your Honor, may I
5 respond? I'm simply asking what is the purpose
6 of the witness's testimony.

7 JUDGE MILLER: You don't have to
8 give a legal conclusion as to its relevance.
9 You are free to elaborate as to how you feel it
10 might be connected to this proceeding, but if
11 you -- if you don't wish to, I think you have a
12 burden to explain why it's in your testimony.

13 THE WITNESS: Sure. Basically I
14 was just trying to differentiate -- again, I
15 think we have a case where the technology is
16 really way ahead of the regulatory side of the
17 things, and what I'm trying to differentiate
18 here is there's a lot of aspects about frame
19 relay being connection-oriented versus switched
20 which make it -- which make it unfair to
21 classify it as an exchange service in the
22 classical interpretation of that word. That's
23 what I was trying to get after.

24 QUESTIONS BY MR. CANIS:

25 Q. Are there other connection-oriented services

1 that it would be similarly unfair to
2 characterize as exchange service for the
3 purposes of interconnection?

4 A. Again, this is my personal opinion. I don't
5 claim to have any legal expertise, but I would
6 say the asynchronous transfer mode could be
7 similarly noted, as well as Internet traffic.

8 Q. Is it your understanding, then, that
9 Ameritech's position is that ATM and Internet
10 access traffic must be excluded from
11 interconnection?

12 MR. FRUEHWALD: Your Honor, I'm
13 going to interpose an objection there because
14 he's not here stating positions. Those have
15 been and will be briefed. Obviously there's a
16 difference between interconnection under
17 certain sections of the statute,
18 interconnection under the statute that they
19 want to rely upon.

20 Ameritech is not saying that this is not
21 interconnection. It's just not interconnection
22 under the specific statute which gives them a
23 price break that they're asking for, so that
24 question is even unfair in statutory terms,
25 much less the unfairness of asking a fact